## Remarks/Arguments

### I.    Introduction

- Claims 1-25 are in the application.

- Claims 1-25 stand rejected under 35 U.S.C. § 112, second paragraph.

- Claim 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang, "Design and Protocol for Internet Accessible Mathematical Computation", 1999.

- Claims 1, 4, 5, 7, 9-13, 17, 18, 20, and 22-25 are currently amended.

- Claims 1 and 13 are independent claims.

### II.    Response to 35 U.S.C. § 112, second paragraph Rejections

Claims 1-25 stand rejected under 35 U.S.C. § 112, second paragraph. The first basis for these rejections was that the term "live component" was indefinite. To overcome this rejection, applicant has amended both independent claims to add defining limitations to the term "live component." These limitations are inserted into the claims in two places. The first place adds the limitation to "pre-built application modules" as "including a rendering module and an equation evaluation module." The second place adds the limitation that the "live component includes said live component viewer and said live component description file." Together, in combination with the remaining limitations of claims 1 and 13, Applicant believes that these amendments further define that a

"live component" itself contains both computational and rendering components.

Support for these changes may be found throughout the specification. For

example, Figures 1-4 and their associated descriptive text show both the

computational and rendering elements being used to generate live components.

Paragraph 81 explicitly states that "Live components" functionality includes live

calculating capabilities in addition to rendering equations. For example, live

functionality can include displaying the value of variables calculated using

algorithms associated with mathML tags such as "eq" ("="), "plus" ("+"),

"minus" ("-"), etc. Because the claims as amended now provides further

limitations to distinguish a "live component" from a generic component,

withdrawal of these rejections is respectfully requested.

Claims 7, 9, 20, and 22, were further rejected under 35 U.S.C. § 112,

second paragraph for using the term "XML." These claims have been amended to

change the term "XML" to "an extensible markup language tag." Support for this

amendment may be found in at least paragraphs 72 and 81. Applicant believes

that this new term of limitation is definite. Claims 9, 10, 11, 22, 23, and 24 were

rejected under 35 U.S.C. § 112, second paragraph for reciting the limitation

"MathML" because it is a trademark. Applicant has amended these claims to

substitute the generic term "mathematic element" for MathML and "functional

extension" as extensions to "mathematic element." Support for these changes

may be found in paragraphs 71 and 81 of the specification. Therefore, withdrawal

of these rejections is respectfully requested.

**III.** **Response to 35 U.S.C. § 102(b) Rejections**

Claims 1-25 stand rejected under 35 U.S.C. 102(b) as being anticipated by Wang, "Design and Protocol for Internet Accessible Mathematical Computation", 1999. However, applicant believes that these rejections are improper because the presently claimed invention and Wang are fundamentally different from each other. One of the main goals of the system disclosed in Wang is to "[s]upport interactive use of user-designated remote *compute servers* almost as if they were local programs." (Wang, page 292 second paragraph). Wang implements this goal using an architecture that requires an end-user agent (Icl) to communicate with an independent compute engine using a Mathematical Computational Protocol (MCP). (See Wang, Page 292, section 3 entitled "Architectural Overview." However, the presently claimed invention does not need either an independent compute engine or an MCP because the presently claimed invention enables the creation of a self contained live component that when downloaded on a user system, allows that user system to autonomously render and evaluate an equation. Therefore, withdrawal of these rejections is respectfully requested.

**1. Independent Claims 1 and 13.**

The rejection of claims 1 under 35 U.S.C. 102(b) is improper because Wang does not disclose "a resource library." The Examiner cited the MCP library as the clearest example in Wang of a "resource library." However, the resource library is not is an equivalent to the MCP library disclosed in Wang. The resource library in the presently claimed invention is a collection of rules definitions and

other resources. (Specification, figure 1, item 106) "Rules may specify information for creating live components." (Specification, para. 66) Other resources include parsing resources (Specification, fig 14and para. 100-103). The MCP library is a Java class library which only implements the MCP communications protocol. As discussed earlier, the present invention does not require any communications protocols. Therefore, because the resource library is not the same as the MCP library, withdrawal of this rejection is respectfully requested.

The rejections of claims 1 and 13 under 35 U.S.C. 102(b) are improper because Wang does not disclose a live component editor. The "live component editor for allowing a user to edit said live component utilizing resources from said resource library" is not the same as the editor/parser disclosed in Wang. The Examiner in finding that the Editor/Parser on the IAMC client in Wang is equivalent to the live component editor by linking Figure 3, Figure 5 and text on pages 292 and 293 together. This conglomeration of references links the editor (which is part of the Isv) to "live computation" through a communication link to an IAMC using MCP in order to utilize the "compute Engine" and "Math Expr." blocks. However, as described previously, the present invention does not require a communication link to a separate entity to edit a live component. Therefore, withdrawal of this rejection is respectfully requested.

The rejections of claims 1 and 13 under 35 U.S.C. 102(b) are improper because Wang does not disclose creation of custom live component viewers from pre-built application modules directed by a live component editor. A live

component viewer is a submodule of a live component and is a custom collection

of code assembled from pre-built application modules to render the live

components' equation and results. (see figure 5, and para. , 21 and 72). Wang

has a non-custom viewer that is not custom built for each equation calculated and

displayed. Hence, Wang cannot disclose creation of custom live component

viewers from pre-built application modules directed by a live component editor.

Therefore, withdrawal of this rejection is respectfully requested.

### 2. Dependent Claims

Dependent Claims 1-12 and 14-25 ultimately depend on independent

Claims 1 and 13 respectively. For at least the reasons stated above, Applicant

believes that independent Claims 1 and 13 as amended are now in condition for

allowance. Because dependent Claims 1-12 and 14-25 contain all of the

limitations of their respective independent claim, Applicant believes that all of

these claims are now in condition for allowance. Therefore, withdrawal of these

rejections are respectfully requested.

### III.   Additionally Amended Claims

The preamble of Claim 13 has been amended to clarify that the steps of

claim 13 are performed by instructions (stored on a tangible computer readable

medium) being executed by one or more processors. Claims 4, 5, 11, 12, 17, 18,

24, and 25 were amended so that various elements could include "one of the

following" of a list of sub-elements that were already in those claims.

## IV.    Conclusion

For all of the reasons advanced above, Applicant respectfully submits that the application is in condition for allowance and that action is respectfully solicited.  If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' representative at the telephone number shown below.

The Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment, to Deposit Account No. 501450.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for an extension for time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 501450.

Respectfully submitted,

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